

WHAT IS CLAIMED IS:

*Sub 2x* A method of reducing goblet cell hyperplasia in an airway of an individual, comprising:  
administering a therapeutically effective amount of an epidermal growth factor receptor (EGF-R) antagonist  
to a patient suffering from airway hypersecretion of mucus due to airway goblet cell hyperplasia.

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2. The method of claim 1, wherein said EGF-R antagonist is a kinase inhibitor selective for  
EGF-R.

3. The method of claim 2, wherein said antagonist is BIBX1522.

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4. The method of claim 1, wherein the antagonist is an antibody.

5. The method of claim 4, wherein the antibody is a monoclonal antibody that specifically  
binds epidermal growth factor (EGF).

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6. The method of claim 4, wherein the antibody is a monoclonal antibody that specifically  
binds epidermal growth factor receptor (EGF-R).

7. The method of claim 1, wherein the antagonist inhibits release of a transmembrane EGF-R  
ligand.

8. The method of claim 7, wherein the antagonist is a selective inhibitor of a metalloproteinase  
that mediates release of the transmembrane EGF-R ligand.

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9. The method of claim 8, wherein the antagonists is a G-protein-coupled receptor antagonist  
that induces goblet cell production.

10. The method of claim 1, wherein the antagonist inhibits transphosphorylation of EGF-R.

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11. The method of claim 8, wherein said antagonist is an anti-oxidant.

12. The method of claim 1, wherein the antagonist is administered by injection.

13. The method of claim 12, wherein the antagonist is administered intravenously with a carrier in the form of normal saline solution.

14. The method of claim 1, wherein the antagonist is administered by inhalation.

15. The method of claim 1, wherein the antagonist is administered by liposome delivery.

16. 15. The method of claim 15, wherein said liposome is sterically stabilized and administered intravenously.

10 *Sub A2* 17. A pharmaceutical formulation for reducing of goblet cell hyperplasia in an airway, comprising:

a therapeutically effective amount of an epidermal growth factor receptor (EGF-R) antagonist in a dose sufficient to reduce goblet cell hyperplasia in an airway;

15 and a pharmaceutically acceptable carrier.

18. The formulation of claim 17, wherein said EGF-R antagonist is a kinase inhibitor selective for EGF-R.

20 19. The formulation of claim 18, wherein said EGF-R antagonist inhibits transphosphorylation of EGF-R.

20. The formulation of claim 19, wherein said antagonist is an anti-oxidant.

21. The formulation of claim 17, wherein the antagonist is an antibody.

22. The formulation of claim 21, wherein the antibody is a monoclonal antibody that specifically binds epidermal growth factor (EGF).

30 23. The formulation of claim 21, wherein the antibody is a monoclonal antibody that specifically binds epidermal growth factor receptor (EGF-R).

24. The formulation of claim 17, wherein the antagonist inhibits release of a transmembrane EGF-R ligand.

*Sub b1*  
25 24. The formulation of claim 24, wherein the antagonists is a selective inhibitor of a metalloproteinase that mediates release of the transmembrane EGF-R ligand.

5 *Sub b1 b3* 26. A method of treating nasal polyps, comprising administering a therapeutically effective amount of an epidermal growth factor receptor (EGF-R) antagonist to a patient suffering nasal polyps.